What is claimed is:

1. A multicolor thermal imaging method comprising

(a) addressing at least partially independently a first image-forming layer of a thermal imaging member, which includes at least two different image-forming layers, from a surface of said imaging member with a thermal printhead or printheads configured to form an image in said first image-forming layer by controlling the temperature of said thermal printhead or printheads configured to form an image in said first imsge-forming layer and the time interval during which thermal energy is applied to said first image-forming layer;

(b) addressing at least partially independently a second image-forming layer of said imaging member from the same surface of said imaging member with a thermal printhead or printheads configured to form an image in said second image-forming layer by controlling the temperature of said thermal printhead or printheads configured to form an image in said second image-forming layer and the time interval during which thermal energy is applied to said second image-forming layer.

2. The multicolor thermal imaging method as defined in claim 1 wherein said first and second image-forming layers are addressed by the same thermal printhead.

3. The multicolor thermal imaging method as defined in claim 1 wherein said first and second image-forming layers are addressed by different thermal printheads.

4. The multicolor thermal imaging method as defined in claim 1 wherein said first and second image-forming layers are addressed substantially independently.

5. The multicolor thermal imaging method as defined in claim 1 wherein said first and second image-forming layers are addressed independently.

6. The multicolor thermal imaging method as defined in claim 1 wherein said first and second image-forming layers are addressed by the same thermal printhead in a single pass of the printhead.

7. The multicolor thermal imaging method as defined in claim 1 wherein said thermal imaging member further includes a substrate having first and second opposed surfaces and said first and second image-forming layers are carried by the same surface of said substrate.

8. The multicolor thermal imaging method as defined in claim 1 wherein said thermal imaging member further includes a substrate having first and second opposed surfaces and at least one of said image-forming layers is carried by said first surface of said substrate and at least another of said image-forming layers is carried by said second surface of said substrate.

9. The multicolor thermal imaging method as defined in claim 1 wherein said thermal imaging member includes a third different image-forming layer and further including the step of

(c) addressing at least partially independently said third image-forming layer with a thermal printhead or printheads configured to form an image in said third image-forming layer by controlling the temperature of said thermal printhead or printheads configured to form an image in said third image-forming layer and the time interval during which thermal energy is applied to said third image-forming layer.

10. The multicolor thermal imaging method as defined in claim 9 wherein said imaging member further includes a substrate having first and second opposed surfaces and said first and second image-forming layers are carried by said first surface of said substrate and said third image-forming layer is carried by said second surface of said substrate.

11. The multicolor thermal imaging method as defined in claim 10 wherein said first and second image-forming layers are addressed by at least a first thermal printhead from the same surface of said imaging member and said third image-forming layer is addressed by at least a second thermal printhead from the opposing surface of said imaging member.

12. The multicolor thermal imaging method as defined in claim 9 wherein said imaging member further includes a substrate and said first, second and third image-forming layers are carried by the same surface of said substrate.

13. The multicolor thermal imaging method as defined in claim 12 wherein said first, second and third image-forming layers are addressed by the same thermal printhead in a single pass of the printhead.

14. The multicolor thermal imaging method as defined in claim 13 wherein the activation temperature of said third image-forming layer is higher than the activation temperature of said second image-forming layer and the activation temperature of said second image-forming layer is higher than the activation temperature of said first image-forming layer.

15. The multicolor thermal imaging method as defined in claim 1 wherein at least one of said first and second image-forming layers comprises a leuco dye in combination with a developer.

16. The multicolor thermal imaging method as defined in claim 1 wherein at least one of said image-forming layers comprises a compound which forms color intramolecularly.

17. The multicolor thermal imaging method as defined in claim 1 wherein thermal energy is applied to said image-forming layers at a temperature of from about 50°C to about 450°C for a period of from about 0.01 to about 100 milliseconds.

18. The multicolor thermal imaging method as defined in claim 1 wherein at least one of said image-forming layers further includes a thermal solvent.

19. The multicolor thermal imaging method as defined in claim 18 wherein a plurality of said image-forming layers each include a thermal solvent and each thermal solvent has a different melting point.

20. The multicolor thermal imaging method as defined in claim 1 wherein at least one of said image-forming layers is initially substantially colorless and a colored image is formed therein..

21. The multicolor thermal imaging method as defined in claim 1 wherein at least one of said image-forming layers is initially colored and a less colored image is formed therein.

22. The multicolor thermal imaging method as defined in claim 1 wherein at least one of said image-forming layers is initially a first color and an image of a second color is formed therein.

23. The multicolor thermal imaging method as defined in claim 1 wherein the thermal energy applied to each said image-forming layer is controlled by supplying one or more pulses of electrical current to at least one heating element of said printhead or printheads configured to form an image in said image-forming layer during the time interval for forming a pixel of an image in the area of said image-forming layer in thermal contact with said heating element.

24. The multicolor thermal imaging method as defined in claim 1 wherein the thermal energy applied to said first image-forming layer by at least one of said printhead or printheads configured to form an image in said first image-forming layer is controlled by a first voltage applied to at least one of said printhead or printheads when forming an image in said first image-forming layer and the thermal energy applied to said second image-forming layer by at least one of said printhead or printheads configured to form an image in said second image-forming layer is controlled by a second voltage applied to at least one of said printhead or printheads when forming an image in said second image-forming layer, said first and second voltages being different.

25. The multicolor thermal imaging method as defined in claim 1 wherein the thermal energy applied to said first image-forming layer by at least one of said printhead or printheads configured to form an image in said first image-forming layer is controlled by a first voltage applied to at least one of said printhead or printheads when forming an image in said first image-forming layer and the thermal energy applied to said second image-forming layer by at least one of said printhead or printheads configured to form an image in said second image-forming layer is controlled by a second voltage applied to at least one of said printhead or printheads when forming an image in said second image-forming layer, said first and second voltages being substantially the same.

26. The multicolor thermal imaging method as defined in claim 1 wherein the thermal energy applied to at least one of said image-forming layers is controlled by

separating the time interval for forming a single pixel of an image in an area of said image-forming layer in thermal contact with a heating element of said thermal printhead or printheads configured to form an image in said image-forming layer into a plurality of temporal subintervals; and

activating said heating element by applying a single pulse of current during each of a group temporal sub-intervals selected from said plurality of temporal sub-intervals,

wherein the proportion of the duration of said temporal sub-intervals during which said pulse of current is applied is a value between about 1% and 100%.

27. The multicolor thermal imaging method as defined in claim 26 further comprising the steps:

separating the time interval for forming a single pixel of an image in an area of said image forming layer in thermal contact with a heating element of said thermal printhead or printheads into first and second time intervals, said first time interval being shorter than said second time interval;

wherein said proportion of the duration of said temporal subintervals during which said pulse of current is applied is fixed at a substantially constant value, p1, during said first time interval and a substantially constant value, p2, during said second time interval, where p1 > p2.

28. The multicolor thermal imaging method as defined in claim 27 wherein said second time interval is at least two times as long as said first time interval.

29. The multicolor thermal imaging method as defined in claim 27 wherein p1 is at least two times greater than p2.

30. The multicolor thermal imaging method as defined in claim 26 further comprising the steps:

separating the time interval for forming a single pixel of an image in an area of said image forming layer in thermal contact with a heating element of said thermal printhead or printheads into first, second and third time intervals, said first time interval being shorter than said second time interval and said second time interval being shorter than said third time interval;

wherein said proportion of the duration of said temporal subintervals during which said pulse of current is fixed at a substantially constant value, p1, during said first time interval, a substantially constant value, p2, during said second time interval and a substantially constant value, p3 during said third time interval, where $p1 > p2 > p3$.

31. The multicolor thermal imaging method as defined in any one of claims 26 – 30 wherein the voltage applied to said printhead or printheads is maintained at a substantially constant value.

32. The multicolor thermal imaging method as defined in any one of claims 26 – 30 wherein each temporal subinterval of said plurality of subintervals is of substantially equal duration.

33. The multicolor thermal imaging method as defined in any one claims 26 – 30 wherein each temporal subinterval of said plurality of subintervals is of substantially equal duration and the voltage applied to said printhead or printheads is maintained at a substantially constant value.

34. The multicolor thermal imaging method as defined in claim 1 wherein the activation temperature of said second image-forming layer is higher than the activation temperature of said first image-forming layer.

35. A thermal imaging member comprising

(a) a substrate having first and second opposed surfaces;

(b) first and second image-forming layers carried by said first surface of said substrate, said first image-forming layer being closer to said first surface of said substrate than said second image-forming layer, said first image-forming layer having a lower activation temperature than said second image-forming layer; and

(c) a first interlayer positioned between said first and second image-forming layers.

36. The thermal imaging member as defined in claim 35 wherein said interlayer comprises an inert material.

37. The thermal imaging member as defined in claim 35 wherein said interlayer includes a material which undergoes a phase change upon the application of heat thereto.

38. The thermal imaging member as defined in claim 35 wherein said first and second image-forming layers each has a thickness of from about 0.5 to about 4.0 μm.

39. The thermal imaging member as defined in claim 35 wherein at least one of said first and second image-forming layers has a thickness of about 2 μm.

40. The thermal imaging member as defined in claim 35 wherein said first interlayer has a thickness of from about 1 to about 40 μm.

41. The thermal imaging member as defined in claim 35 wherein said first interlayer has a thickness of from about 14 to about 25 μm.

42. The thermal imaging member as defined in claim 35 and further including:

(a) a third image-forming layer carried by said first surface of said substrate, said third image-forming layer being farther from said first surface of said substrate than said second image-forming layer and having a higher activation temperature than said second image-forming layer; and

(b) a second interlayer positioned between said second and third image-forming layers.

43 The thermal imaging member as defined in claim 42 wherein said second interlayer is thinner than said first interlayer.

44. The thermal imaging member as defined in claim 42 wherein said first image-forming layer has a thickness of from about 0.5 to about 4 μm and comprises a leuco dye and a developer material, each having a melting point of from about 90°C to about 140°C , said second image-forming layer has a thickness of from about 0.5 to about 4 μm and comprises a leuco dye and a developer, each having a melting point of from about 150°C to about 250°C, said third image –

forming layer having a thickness of from about 0.5 to about 4 μm and comprising a leuco dye having a melting point of at least 150°C and a developer having a melting point of at least 250°C.

45 The thermal imaging member as defined in claim 42 wherein said first image-forming layer has a thickness of from about 0.5 to about 4 μm and comprises a leuco dye and a developer material, each having a melting point of from about 90°C to about 140°C , said second image-forming layer has a thickness of from about 0.5 to about 4 μm and comprises a leuco dye and a developer, each having a melting point of from about 150°C to about 250°C, said third image – forming layer having a thickness of from about 0.5 to about 4 μm and comprising a compound which forms color intramolecularly at a temperature of at least 300°C in from about 0.1 to about 2 milliseconds.

46. The thermal imaging member as defined in claim 35 and further including a topcoat layer and a backcoat layer.

47. The thermal imaging member as defined in claim 46 and further including

(c) a third image-forming layer carried by said second surface of said substrate.

48. The thermal imaging member as defined in claim 47 wherein said substrate is transparent and further including a reflective layer adjacent the surface of said third image-forming layer remote from said second surface of said substrate.

49. The thermal imaging member as defined in claim 35 wherein the thickness of said substrate is less than about 20μm.

50. The thermal imaging member as defined in claim 35 wherein said substrate has a thickness of about 5 μm.

51. A thermal imaging member comprising in succession:

a first image-forming layer, a first timing layer, a layer of a fixing material, a second timing layer and a second image-forming layer.

52. The thermal imaging member as defined in claim 51 wherein said first image-forming layer comprises a layer of a first leuco dye in combination with

a layer of an acid developer material having a melting point T_7, said second image-forming layer comprises a layer of a second leuco dye in combination with a layer of an acid developer material having a melting point T_8, said fixing material has a melting point T_9 and $T_7 < T_8$ and $T_9 < T_7$ and T_8.

53. The thermal imaging member as defined in claim 52 wherein said first timing layer is thinner than said second timing layer.

54. The thermal imaging member as defined in claim 52 and further including a third image-forming layer comprising a layer of a third leuco dye in combination with a layer of an acid developer material having a melting point T_{10}, where $T_{10} > T_7$ and T_8.

55. The thermal imaging member as defined in claim 54 wherein said first timing layer is thinner than said second timing layer.

56. A thermal imaging member comprising in succession:

a first layer of a decolorizer material, a first image-forming layer, a first timing layer, a layer of a fixing material, a second timing layer, a second image-forming layer and a second layer of a decolorizer material.